P3. The Adventures of Hodja Nasreddin

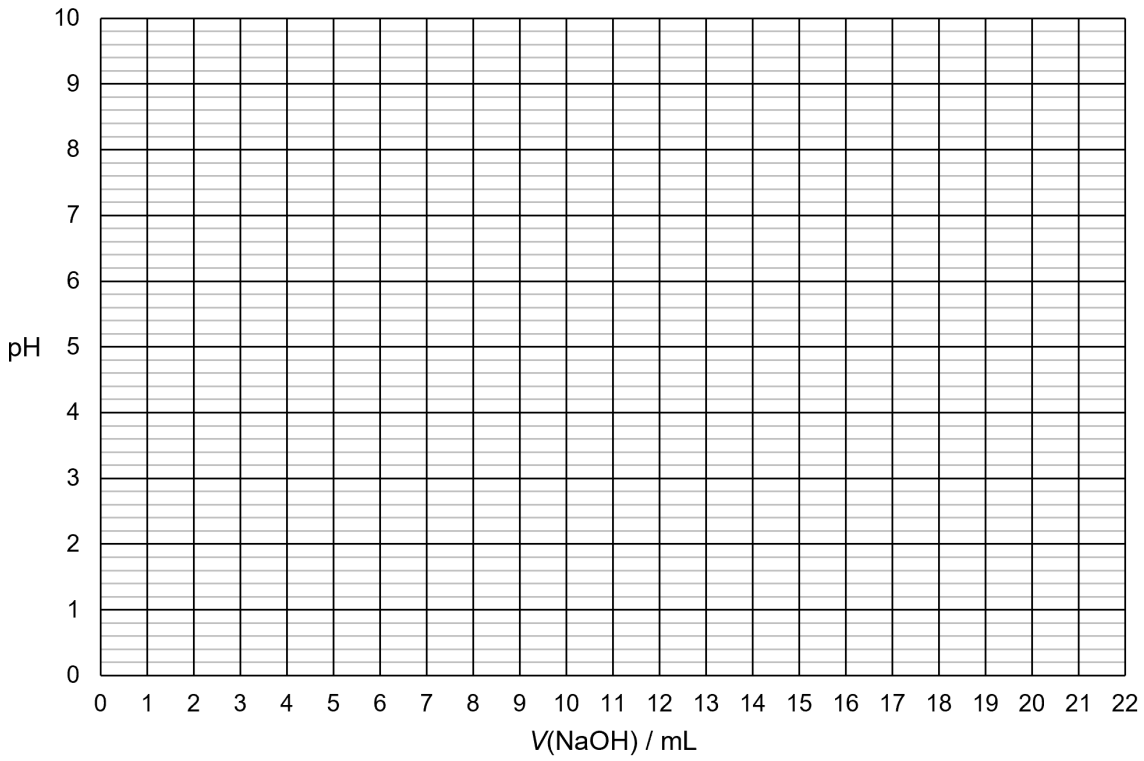
15% of total										
Question	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	**Total**
Points	2	0	50	12	1	9	2	10	1	87
Results										

Q3.1 (2 pt)

pH = 1	pH = 2	pH = 3	pH = 4	pH = 5	pH = 6	pH = 7	pH = 8	pH = 9	pH = 10
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Q3.2 (0 pt)
X3

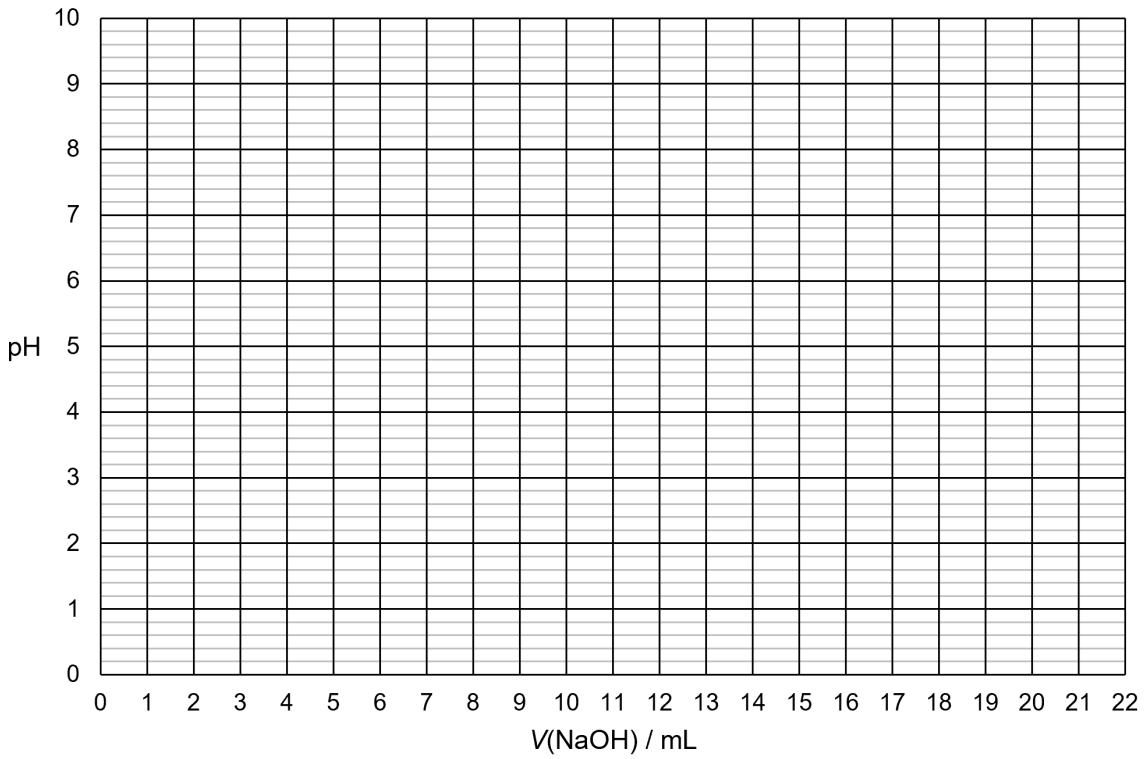
V_{NaOH}	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0
pH									
V_{NaOH}	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5
pH									
V_{NaOH}	9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0
pH									
V_{NaOH}	13.5	14.0	14.5	15.0	15.5	16.0	16.5	17.0	17.5
pH									
V_{NaOH}	18.0	18.5	19.0	19.5	20.0	20.5	21.0	21.5	22.0
pH									



Q3.2 (cont.)

X4

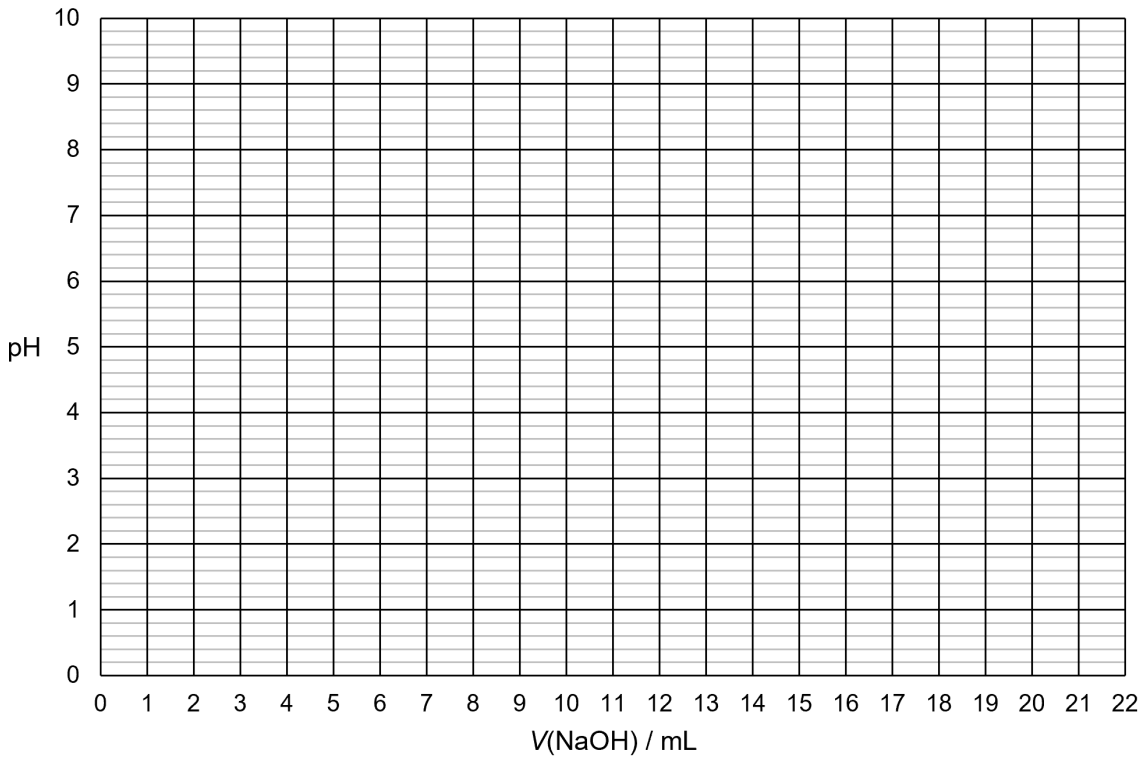
V_{NaOH}	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0
pH									
V_{NaOH}	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5
pH									
V_{NaOH}	9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0
pH									
V_{NaOH}	13.5	14.0	14.5	15.0	15.5	16.0	16.5	17.0	17.5
pH									
V_{NaOH}	18.0	18.5	19.0	19.5	20.0	20.5	21.0	21.5	22.0
pH									



Q3.2 (cont.)

X5

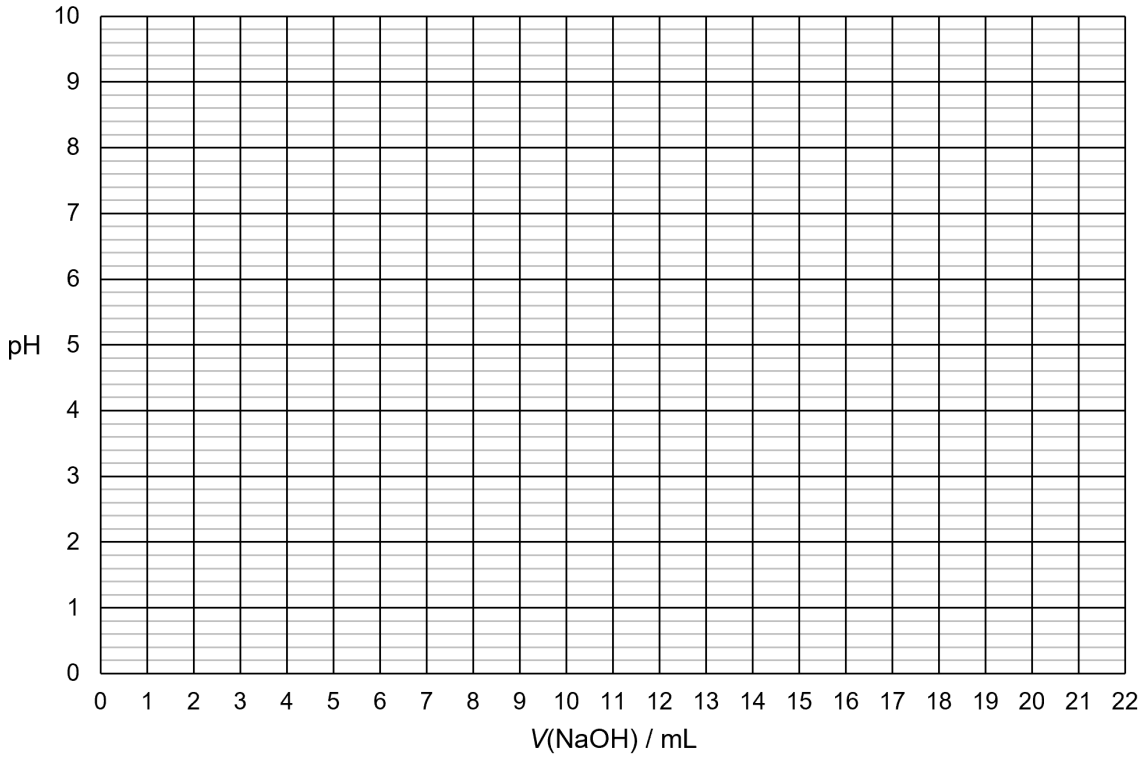
V_{NaOH}	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0
pH									
V_{NaOH}	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5
pH									
V_{NaOH}	9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0
pH									
V_{NaOH}	13.5	14.0	14.5	15.0	15.5	16.0	16.5	17.0	17.5
pH									
V_{NaOH}	18.0	18.5	19.0	19.5	20.0	20.5	21.0	21.5	22.0
pH									



Q3.2 (cont.)

X6

V_{NaOH}	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0
pH									
V_{NaOH}	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5
pH									
V_{NaOH}	9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0
pH									
V_{NaOH}	13.5	14.0	14.5	15.0	15.5	16.0	16.5	17.0	17.5
pH									
V_{NaOH}	18.0	18.5	19.0	19.5	20.0	20.5	21.0	21.5	22.0
pH									



Q3.3 (50 pt)

X3

V_{NaOH}	0.0	□	0.5	□	1.0	□	1.5	□	2.0	□	2.5	□	3.0	□	3.5
V_{NaOH}	3.5	□	4.0	□	4.5	□	5.0	□	5.5	□	6.0	□	6.5	□	7.0
V_{NaOH}	7.0	□	7.5	□	8.0	□	8.5	□	9.0	□	9.5	□	10.0	□	10.5
V_{NaOH}	10.5	□	11.0	□	11.5	□	12.0	□	12.5	□	13.0	□	13.5	□	14.0
V_{NaOH}	14.0	□	14.5	□	15.0	□	15.5	□	16.0	□	16.5	□	17.0	□	17.5
V_{NaOH}	17.5	□	18.0	□	18.5	□	19.0	□	19.5	□	20.0	□	20.5	□	21.0

X4

V_{NaOH}	0.0	□	0.5	□	1.0	□	1.5	□	2.0	□	2.5	□	3.0	□	3.5
V_{NaOH}	3.5	□	4.0	□	4.5	□	5.0	□	5.5	□	6.0	□	6.5	□	7.0
V_{NaOH}	7.0	□	7.5	□	8.0	□	8.5	□	9.0	□	9.5	□	10.0	□	10.5
V_{NaOH}	10.5	□	11.0	□	11.5	□	12.0	□	12.5	□	13.0	□	13.5	□	14.0
V_{NaOH}	14.0	□	14.5	□	15.0	□	15.5	□	16.0	□	16.5	□	17.0	□	17.5
V_{NaOH}	17.5	□	18.0	□	18.5	□	19.0	□	19.5	□	20.0	□	20.5	□	21.0

X5

V_{NaOH}	0.0	□	0.5	□	1.0	□	1.5	□	2.0	□	2.5	□	3.0	□	3.5
V_{NaOH}	3.5	□	4.0	□	4.5	□	5.0	□	5.5	□	6.0	□	6.5	□	7.0
V_{NaOH}	7.0	□	7.5	□	8.0	□	8.5	□	9.0	□	9.5	□	10.0	□	10.5
V_{NaOH}	10.5	□	11.0	□	11.5	□	12.0	□	12.5	□	13.0	□	13.5	□	14.0
V_{NaOH}	14.0	□	14.5	□	15.0	□	15.5	□	16.0	□	16.5	□	17.0	□	17.5
V_{NaOH}	17.5	□	18.0	□	18.5	□	19.0	□	19.5	□	20.0	□	20.5	□	21.0

Q3.3 (cont.)

X6

V_{NaOH}	0.0	□	0.5	□	1.0	□	1.5	□	2.0	□	2.5	□	3.0	□	3.5
V_{NaOH}	3.5	□	4.0	□	4.5	□	5.0	□	5.5	□	6.0	□	6.5	□	7.0
V_{NaOH}	7.0	□	7.5	□	8.0	□	8.5	□	9.0	□	9.5	□	10.0	□	10.5
V_{NaOH}	10.5	□	11.0	□	11.5	□	12.0	□	12.5	□	13.0	□	13.5	□	14.0
V_{NaOH}	14.0	□	14.5	□	15.0	□	15.5	□	16.0	□	16.5	□	17.0	□	17.5
V_{NaOH}	17.5	□	18.0	□	18.5	□	19.0	□	19.5	□	20.0	□	20.5	□	21.0

Q3.4 (12 pt)

	HA	HB	H_2C	HA + HB (1:1)	HA + H_2C (1:1)	HB + H_2C (1:1)
X1	☐	☐	☐	☐	☐	☐
X2	☐	☐	☐	☐	☐	☐
X3	☐	☐	☐	☐	☐	☐
X4	☐	☐	☐	☐	☐	☐
X5	☐	☐	☐	☐	☐	☐
X6	☐	☐	☐	☐	☐	☐

Q3.5 (1 pt)

pH = _____

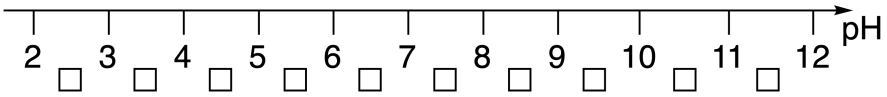
Q3.6 (9 pt)

□ < □ < □ < □ < □

Q3.7 (2 pt)

□ < □ < □ < □

Q3.8 (10 pt)



Q3.9 (1 pt)

BPB	CR	BG	MR	CPR	BTB	PR	TB	PP	AYR
□	□	□	□	□	□	□	□	□	□